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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,753	09/23/2003	James L. McArdle	58717US002	1787

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3M INNOVATIVE PROPERTIES COMPANY
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EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/19/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/19/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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LegalDocketing@mmm.com

Office Action Summary

Application No.

10/668,753

Applicant(s)

MCARDLE ET AL.

Examiner

Michael A. Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,10-24,26,27,29,31-33 and 35-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-3,5,14-19,22,35 and 36 is/are allowed.
6) ☒ Claim(s) 7,10-13,20,21,23,24,26,27,29,31-33,37 and 38 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/22/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/22/07 has been entered.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20-21 and 37-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new matter literally defined in claims 20 and 21 is the limitation that incorporates the "cycle 60" (defined in the amendment to the claims of 3/24/05) aspect for test procedure III defined in the claims because the specification does not clearly support this. The specification, on page 4, defines "cycle 30" in relation to test procedure III and not "cycle 60" as claimed.

In the response dated 3/24/05, applicants state that example 10 and D3 (defined in the declaration of 3/24/05) support the change, however, after further review of the specification, example 10 of the specification does not support this change in its entirety (i.e. "the second cut

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rate at cycle 60 is no greater than 30% less than the first cut rate”, as defined in claim 20 and “has a cut rate decrease over 60 cycles of no more than 50% of a comparative cut rate decrease”, as defined in claim 21). Although from example 10, a cut rate less than 30% is apparent, this cut rate percentage is a distinct value and thus does not support the limitation in the claims, as broadly defined.

Claim 7, 10-13, 21, 23, 24, 26, 27, 29, 31-33 and 38 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is indefinite because it depends on a canceled claim.

Claim 7 is also indefinite because the size limitation of claim 7 is outside the scope of the preceding claim since claim 7 does not define an upper limit.

Claims 10-13 are indefinite because they broadly define ceramic abrasive particles, however, claim 1 defines ceramic aluminum oxide abrasive particles, thus the abrasive particles of claims 10-13 are outside the scope of the specific abrasive defined by claim 1.

Claim 13 is also indefinite because if the ceramic abrasive particles are non-seeded ceramic alumina, they read on the particles defined in claim 1. In view of this, the limitation of claim 13 is implied by claim 1 and thus claim 13 should be canceled.

Claim 21 is indefinite because the examiner is unclear as to what the composition and other parameters of a conventional coated abrasive are (i.e. size of agglomerates, height of agglomerates from the backing, shape of agglomerates, types of make and size coating, type of backing, etc.).

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Claim 23 is indefinite because it broadly defines ceramic abrasive particles in parts (e) and (f), however, part (a) of this claim defines ceramic aluminum oxide abrasive particles, thus the abrasive particles defined in parts (e) and (f) are outside the scope of the specific abrasive defined by part (a).

Claim 24 is indefinite because it broadly defines ceramic abrasive particles, however, claim 23 defines ceramic aluminum oxide abrasive particles, thus the abrasive particles of claim 24 are outside the scope of the specific abrasive defined by claim 23.

Claim 24 is also indefinite because the defined sequence is already defined by claim 23 as is apparent from steps (e) and (f).

Claims 31-32 are indefinite because they broadly define ceramic abrasive particles, however, claim 23 defines ceramic aluminum oxide abrasive particles, thus the abrasive particles of claims 31-32 are outside the scope of the specific abrasive defined by claim 23.

Claim 33 is indefinite because it broadly defines ceramic abrasive particles, however, claim 22 defines ceramic aluminum oxide abrasive particles, thus the abrasive particles of claim 33 are outside the scope of the specific abrasive defined by claim 22.

Claim 33 is also indefinite because the size limitation of claim 33 is outside the scope of the size defined by claim 22 since claim 33 does not define an upper limit.

The other claims are indefinite because they depend on indefinite claims.

Claims 1-3, 5, 14-19, 22, 35, 36 are allowable over the prior art of record because said art fails to teach or suggest a structured abrasive article and method of making and using it, wherein the structured abrasive article comprises the claimed specific abrasive composites on a backing,

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said composite comprising (1) ceramic aluminum oxide abrasive particles, having the claimed size, in a binder and (2) the claimed height and (3) faces of the composites being defined at least partially by a parabolic function. In addition, the specification and declaration filed clearly shown criticality for the claimed limitation.

Claims 7, 10-13, 20, 21, 23, 24, 26, 27, 29, 31, 32, 33, 37 and 38 would be allowable for the same reasons if amended to overcome the above rejections.

Applicant's arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

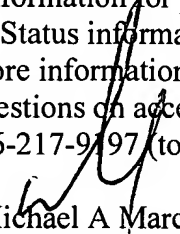
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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~~8/06~~

MM


Michael A Marcheschi
Primary Examiner
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